



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

June 18, 2018

Robert Avalos
Registration Manager
Loveland Products, Inc.
PO Box 1286
Greeley, CO 80632

Subject: Registration Review Label Mitigation for Sulfonylurea
Product Name: LPI Thifensulfuron
Application Date: 12/14/2017
EPA Registration Number: 34704-1003
Decision Number: 540490

Dear Mr. Avalos:

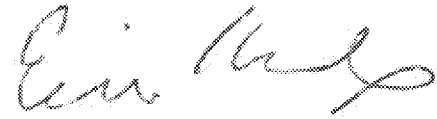
The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Sulfonylurea Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Lisa Pahel by phone at (703) 347-0459, or via email at pahel.lisa@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft", with a stylized flourish at the end.

Erik Kraft, Product Manager 24
Fungicide and Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs



THIFENSULFURON-METHYL	GROUP	2	HERBICIDE
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LPI THIFENSULFURON

[Alternate Brand Name: THIEF]

HERBICIDE
DRY FLOWABLE

FOR USE ON WHEAT, BARLEY, OAT, TRITICALE, FALLOW, CORN, SOYBEANS AND AS A PRE-PLANT OR POST-HARVEST HERBICIDE

ACTIVE INGREDIENT:	% By Wt.
Thifensulfuron-methyl	
Methyl 3-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino] sulfonyl]-2-thiophenecarboxylate:	75.0%
OTHER INGREDIENTS:	25.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

For Additional Precautionary Statements, Complete First Aid, Directions for Use, Storage and Disposal and Other Use Information, See Inside This Label Booklet.

FIRST AID

If on skin or clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 - 20 minutes.
- Call a poison control center or doctor for treatment advice.

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

FOR A MEDICAL EMERGENCY INVOLVING LPI THIFENSULFURON CALL: 1-866-944-8565.

Note to Physician: If ingested, endotracheal intubation and gastric lavage should be performed as soon as possible followed by charcoal and sodium sulfate administration.

EPA Reg. No. 34704-1003
EPA EST. No.
NET CONTENTS: GAL (L)

FORMULATED FOR:
LOVELAND PRODUCTS, INC.
P.O. BOX 1286
GREELEY, COLORADO 80632-1286

ACCEPTED

06/18/2018

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 34704-1003

[EXP 10/17 Print Code to be placed here]

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Caution! Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Chemical resistant gloves made out of any waterproof material, and
- Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users Should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

Groundwater Label Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Label Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for days after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of thifensulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid over-filling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

PRODUCT INFORMATION

LPI THIFENSULFURON may be used for selective postemergence control of certain broadleaf weeds in wheat (including durum), barley, oat, triticale, post-harvest burndown, pre-plant burndown, fallow, corn and soybeans. This product is a dry flowable granule to be mixed in water or other listed carrier and applied as a uniform broadcast spray. It is noncorrosive, nonflammable, nonvolatile and does not freeze.

RESTRICTIONS

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

- Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas.
- Do not allow sprays to drift to desirable plants.
- Do not apply to wheat, barley, oats or triticale crops under seeded with another crop.
- Do not apply this product through any type of irrigation system.

PRECAUTIONS

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

- Take all necessary precautions to avoid all direct or indirect contact (including spray drift) with non-target plants or areas.

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley, oats, triticale, corn or soybeans.

For ground applications applied when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. Soybeans, corn, and cereal varieties may differ in their response to various herbicides. Loveland Products, Inc. advises that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of LPI THIFENSULFURON to a small area.

LPI THIFENSULFURON must not be applied to crops that are stressed by severe weather conditions, drought (including low levels of subsoil moisture), low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest to cereals when the crop is in the 2 to 5- leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

For cereals under certain conditions including heavy rainfall, prolonged cold weather (daily high temperature less than 50°F.), or wide fluctuations in day/night temperatures prior to or soon after LPI THIFENSULFURON application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix LPI THIFENSULFURON with 2,4-D (ester formulations perform best- see the "TANK MIXTURES IN CEREALS" section of this label) and apply after the crop is in the tillering stage of growth.

BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS

Best results are obtained when this product is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree of control and duration of effect are dependent on rate used, sensitivity and size of target weed and environmental conditions at the time of and following application.

This product stops growth of susceptible weeds rapidly. However, typical symptoms of dying weeds (discoloration) may not be noticeable for 1 to 3 weeks after application (2 to 5 weeks for wild garlic) depending on the environmental conditions and weed susceptibility. Warm, moist conditions following treatment promote the activity of this product, while cold, dry conditions delay the activity. Weeds hardened-off by cold weather or drought stress will be less susceptible.

A vigorous growing crop will aid weed control by shading and providing competition for weeds. However, a dense crop canopy at time of application can intercept spray and result in reduced weed control. Weeds may not be adequately controlled in areas of thin crop stand or seeding skips.

Applications made to weeds that are in the cotyledon stage, larger than the size indicated, or to weeds under stress may result in unsatisfactory control.

This product may injure crops that are stressed from adverse environmental conditions (including extreme temperatures or moisture), abnormal soil conditions, or cultural practices. In addition, different varieties of the crop may have differing levels of sensitivity to treatment with this product under otherwise normal conditions. Treatment of sensitive crop varieties may injure crops.

Weed control may be reduced if rainfall or snowfall occurs soon after application. Several hours of dry weather are needed to allow this product to be sufficiently absorbed by weed foliage.

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To reduce the potential of crop injury in cereals, tank mix this product with 2,4-D (ester formulations perform best; see the TANK MIXTURES section of this label) and apply after the crop is in the tillering stage of growth.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls,
- Chemical-resistant gloves made out of any waterproof material, and
- Shoes plus socks.

This product must be used only in accordance with directions on this label or in separately published Loveland Products, Inc. directions.

To the extent consistent with applicable law, Loveland Products, Inc. will not be responsible for losses or damages resulting from the use of this product in any manner not specified by Loveland Products, Inc.

This product is for use on wheat, barley, oat, triticale, fallow, corn, soybeans and as a pre-plant and/or post-harvest burndown herbicide in most states. Check with your state extension service or Department of Agriculture before use, to be certain this product is registered in your state.

WEED RESISTANCE MANAGEMENT

The active ingredient in this product is thifensulfuron-methyl, which is an acetolactate synthase ALS (acetohydroxyacid synthase AHAS) inhibitor (Group 2). A given weed population may contain or develop resistance to an herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. If levels of control provided by applications of this product is reduced, and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product. Contact your local extension agent, crop advisor, or sales representative to find out if suspected resistant weeds have been found in your region.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors. Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of successful integrated weed management include:

1. Correctly identify weeds and look for trouble areas within field to identify resistance indicators.

2. Rotate crops.
3. Start the growing season with clean fields.
4. Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than 2 applications of a single herbicide mode of action to the same field in a 2-year period. One method to accomplish this is to rotate herbicide non-sensitive trait systems.
5. Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.
6. Control any weeds that may have escaped the herbicide application.
7. Thoroughly clean field equipment between fields.
8. Scout before and after application.

Contact your local agronomic advisor for more specific information on integrated weed management for your area. Users should report lack of performance to registrant or their representative. For mixtures including this herbicide note that each listed weed may not be controlled by multiple mechanisms of action. Refer to crop specific directions (below) for maximum application rates and number of applications.

MANDATORY SPRAY DRIFT

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a Medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Non-target Organism Advisory Statement

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

Windblown Soil Particles

LPI THIFENSULFURON has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of

LPI THIFENSULFURON
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windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying LPI THIFENSULFURON if prevailing local conditions may be expected to result in off-site movement.

CEREALS, FALLOW AND PREPLANT BURNDOWN

WEEDS CONTROLLED				
Annual knawel	Common lambsquarters	Kochia†	Redmaids	Tumble/Jim Hill mustard
Annual sowthistle	Corn chamomile	Ladysthumb	Redroot pigweed	Volunteer lentils
Black mustard	Corn spurry	London rocket	Russian thistle†*	Volunteer peas
Bushy wallflower / Treacle mustard	Cress (mouse-ear)	Mallow (little)	Scentless chamomile /mayweed	Volunteer sunflower*
Carolina geranium	Curly dock	Marshelder	Shepherdspurse	Wild buckwheat*
Coast fiddleneck	False chamomile	Miners lettuce	Smallflower buttercup	Wild chamomile
Common buckwheat	Field pennycress	Mouseeear chickweed	Stinking mayweed /Dogfennel	Wild garlic*
Common chickweed*	Flixweed	Pennsylvania smartweed	Swinecress	Wild mustard
Common groundsel	Green smartweed	Prostrate knotweed	Tarweed fiddleneck	

PARTIAL CONTROL**			
Common cocklebur	Cutleaf eveningprimrose	Mallow (common)	Tansymustard*
Common sunflower	Henbit	Prickly lettuce*	Wild radish*

* See SPECIFIC WEED PROBLEMS in the Cereals section below for more information.

**Partial control: A visual reduction of weed population as well as a significant loss of vigor for individual weed plants. For better results, use 0.5 or 0.6 ounce (0.023 or 0.028 lbs ai) of this product per acre and include a tank mix partner including 2,4-D, MCP, bromoxynil (including bromoxynil octanoate plus bromoxynil heptanoate, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester or bromoxynil octanoate plus bromoxynil heptanoate plus MCPA, 2-ethylhexyl ester), or dicamba (including dicamba, dimethylamine salt). Refer to the TANK MIXTURES section of this label.

† Naturally occurring resistant biotypes of kochia, prickly lettuce and Russian thistle are known to occur. See the TANK MIXTURES and SPECIFIC WEED PROBLEMS sections of this label for additional details.

FALLOW

APPLICATION TIMING

Apply this product in the spring, summer or fall when the majority of weeds have emerged and are actively growing. (See the CROP ROTATION section of this label for additional information).

USE RATES

This product may be used as a fallow treatment for burndown of emerged weeds, in combination with other suitable registered fallow herbicides (See the TANK MIXTURES section of this label for additional information). Apply this product at 0.3 to 0.6 ounce (0.014 to 0.028 lbs ai) per acre to fallow for control or partial control of the weeds listed below. Sequential treatments of this product may be made provided the total amount of this product applied does not exceed 1.0 ounce (0.046 lbs ai) per acre per year.

USE RESTRICTIONS

- DO NOT apply more than 0.6 oz (0.028 lbs ai) of product per acre per application.
- DO NOT apply more than 1.0 oz (0.046 lbs ai) of product per acre per year.
- DO NOT apply more than 3 applications per year at 0.3 oz of product per acre.
- For repeat applications make on a minimum of a 14-day interval.

TANK MIXTURES IN FALLOW

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

This product, when used as a fallow treatment, must be tank mixed with other herbicides that are registered for use in fallow, including glyphosate, glyphosate isopropylamine salt plus 2,4-D isopropylamine salt, Fdicamba plus Glyphosate-isopropylammonium, glyphosate-isopropylammonium plus 2,4-D, isopropylamine salt, glyphosate plus 2,4-D (ester formulations work best), glyphosate plus dicamba, 2,4-D (ester formulations work best), or dicamba, dimethylamine salt alone.

PREPLANT BURNDOWN

APPLICATION TIMING

For burndown of emerged weeds, broadcast applications of LPI THIFENSULFURON may be applied before planting or shortly after planting, but prior to emergence of wheat (including durum), barley, oat, triticale, soybeans and field corn. Apply this product as a burndown treatment up to the day of planting grain sorghum and rice. Apply this product as a burndown treatment at least 7 days prior to planting cotton. Apply this product as a burndown treatment before planting any other crop (including sugarbeets or canola) at least 45 days prior to planting.

Cotton Precaution: Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, and/or drought may weaken cotton seedlings and increase the possibility of crop injury. Cotton resumes normal growth once favorable growing conditions return.

USE RATES

Apply this product at 0.3 to 0.6 ounce (0.014-0.028 lbs ai) per acre for control or partial control of the weeds listed below, except when planting to cotton where this product can be applied at 0.2 to 0.33 ounce (0.009-0.015 lbs ai) per acre. Use the 0.6 ounce (0.028 lbs ai) per acre rate when weed infestation is heavy and predominantly consists of those weeds listed under the WEEDS PARTIALLY CONTROLLED section of this label, or when application timing and environmental conditions are marginal.

Apply this product in combination with other suitable registered preplant burndown herbicides (See the TANK MIXTURES section of this label for additional information).

USE RESTRICTIONS

- DO NOT apply more than 0.6 ounce (0.028 lbs ai) per acre per application, except for cotton.
- For cotton, DO NOT apply more than 0.33 ounce (0.015 lbs ai) per acre per application.
- DO NOT apply more than 3 applications per year at 0.3 oz of product per acre, including burndown applications, and except for field corn, rice, sorghum or soybeans.
- DO NOT apply more than 1 application of this product to field corn, rice, sorghum, or soybeans per year.
- DO NOT apply more than 1.0 ounce (0.046 lbs ai) of this product per acre per year, except for field corn, rice, sorghum or soybeans.
- DO NOT apply more than 0.6 ounce (0.028 lbs ai) of this product per acre per year to field corn, rice, sorghum or soybeans. Application(s) to field corn or soybeans can be made pre-plant/at-planting, and/or postemergence. DO NOT apply by air in the State of New York.
- DO NOT apply after planting sorghum or rice.
- DO NOT apply later than 7 days before planting cotton.
- DO NOT allow livestock to graze on, or feed forage, hay or straw from treated soybean fields.
- For repeat applications make on a minimum of a 14-day interval.

TANK MIXTURES IN PRE-PLANT BURNDOWN APPLICATIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

This product may be used as a pre-plant burndown treatment alone or tank mixed with other herbicides that are registered for use as a pre-plant burndown product, including glyphosate, glyphosate isopropylamine salt plus 2,4-F isopropylamine salt, dicamba plus glyphosate-isopropylammonium, glyphosate-isopropylammonium plus 2,4-D, isopropylamine salt, glyphosate plus dicamba or dicamba, dimethylamine salt) alone.

Pre-plant or at-planting burndown in cotton, field corn, rice, grain sorghum, and soybeans

This product may be used as part of a pre-plant or at-planting burndown treatment, in combination with other suitable registered herbicides.

In fields to be planted to cotton, apply this product at 0.2 to 0.33 ounce (0.009-0.015 lbs ai) per acre. Allow at least 7 days between application and planting of cotton. In fields to be planted to field corn, grain sorghum, rice or soybeans, apply this product at 0.3 to 0.6 ounce (0.014-0.028 lbs ai) per acre for control or partial control of the weeds listed on the EPA registered label. Include a nonionic surfactant, petroleum based crop oil concentrate, or vegetable-seed oil based product (methylated seed oils are considered a vegetable seed-based oil).

- If another herbicide is tank mixed with this product to increase the broadleaf weed spectrum, select adjuvants based on the adjuvant limitations of the companion herbicide.

SPRAY ADJUVANTS

Nonionic Surfactant (NIS)

Apply at a rate (concentration) of 0.25 to 0.5% v/v (1.0 to 2.0 quarts per 100 gallon spray solution). Use the higher rate in hot and dry conditions to enhance control.

Crop Oil Concentrate

Under dry conditions or during cool weather, a petroleum based crop oil concentrate, or vegetable-seed oil-based product may be used in place of a nonionic surfactant at 1.0 to 2.0 gallon per 100 gallon of spray solution (1 to 2% v/v) to enhance weed control. Use a petroleum based crop oil concentrate with at least 14% emulsifiers/surfactant and 80% oil.

Ammonium Nitrogen Fertilizer

An ammonium nitrogen fertilizer can be added to a surfactant or a crop oil concentrate to enhance control. Alternatively, a high quality, sprayable grade of ammonium sulfate (21-0-0) may be used.

COTTON PRECAUTION

Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, and/or drought may weaken cotton seedlings and increase the possibility of crop injury. Cotton resumes normal growth once favorable growing conditions return.

CEREALS

APPLICATION TIMING

Wheat (Including Durum), Barley, Triticale and Winter Oat

Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible.

Spring Oat

Make applications after the crop is in the 3-leaf stage, but before jointing. Do not use on Ogle, Porter or Premier varieties since crop injury can occur.

USE RATES

If predominant weed(s) in field is (are) one of those listed in WEEDS PARTIALLY CONTROLLED table above, always include a tank mix partner (refer to TANK MIXTURES section).

Wheat, Barley and Triticale

Apply 0.5 ounce (0.023 lbs ai) of this product per acre to wheat (including durum), barley or triticale for control or partial control of the weeds listed above.

Use 0.6 ounce (0.028 lbs ai) of this product per acre when weed infestation is heavy and predominately consists of those weeds listed under partial control, or when application timing and environmental conditions are marginal (refer to the APPLICATION TIMING and PRODUCT INFORMATION sections of this label).

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Use 0.3 ounce (0.014 lbs ai) of this product per acre when weed infestation is light and predominately consists of those weeds listed under WEEDS CONTROLLED, and when optimum application conditions occur.

Sequential treatments of this product may be made provided the total amount of this product applied to the crop does not exceed 1.0 ounce (0.046 lbs ai) per acre.

Oat (Spring and Winter)

Apply 0.3 to 0.4 ounce (0.014-0.018 lbs ai) of this product per acre for control of the weeds listed in WEEDS CONTROLLED table.

If predominant weed(s) in field is(are) one of those listed in WEEDS PARTIALLY CONTROLLED table above, always include a tank mix partner (refer to TANK MIXTURES section).

USE RESTRICTIONS

- DO NOT apply more than 0.6 oz (0.028 lbs ai) of product per acre per application, except for oats.
- For oats, DO NOT apply more than 0.4 oz (0.018 lbs ai) of product per acre per application.
- DO NOT apply more than 1.0 oz (0.046 lbs ai) of product per acre per year, except for oats.
- For oats, DO NOT apply more than 0.4 oz (0.018 lbs ai) of product per acre per year.
- DO NOT apply more than 3 applications per year at 0.3 oz of product per acre, except for oats.
- For oats, DO NOT apply more than 1 application per year.
- For repeat applications make on a minimum of a 14-day interval.

SPECIFIC WEED PROBLEMS

Common chickweed and wild buckwheat: For best results, apply a minimum of 0.5 ounce (0.023 lbs ai) of this product per acre plus surfactant when all or the majority of weeds have germinated and are past the cotyledon stage. Weeds must be less than 3 inches tall or across at the time of this product application.

Kochia: Naturally occurring biotypes resistant to this product are known to occur. For best results, use this product in a tank mix with fluroxypyr 1-methylheptyl ester, fluroxypyr 1-methylheptyl ester plus 2,4-D, 2-ethylhexyl ester, fluroxypyr 1-methylheptyl ester plus MCPA, 2-ethylhexyl ester, dicamba, dimethylamine salt, and 2,4-D or MCP (ester or amine), or bromoxynil containing products (including bromoxynil octanoate plus bromoxynil heptanoate, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus bromoxynil heptanoate plus MCPA, 2-ethylhexyl ester or fluroxypyr 1-methylheptyl ester plus Clopyralid, monoethanolamine salt).

Apply this product in the spring when kochia are less than 2 inches tall and are actively growing (refer to the TANK MIXTURES section of this label for additional details on rates and restrictions).

Tansymustard: For best results, use 0.5 to 0.6 ounce (0.023-0.028 lbs ai) of this product per acre plus 2,4-D or MCPA. Refer to the TANK MIXTURES section of this label for more information.

Russian thistle, Prickly lettuce: Naturally occurring biotypes resistant to this product of these weeds are known to occur. For best results, use this product in a tank mix with dicamba, dimethylamine salt) and 2,4-D or MCP (ester or amine), or bromoxynil containing product (including bromoxynil octanoate plus bromoxynil heptanoate, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus bromoxynil heptanoate plus MCPA, 2-ethylhexyl ester or bromoxynil octanoate plus 2,4-D, 2-ethylhexyl ester) and 2,4-D plus bromoxynil. Refer to tank mix partner labels for use rates.

Apply product the spring when Russian thistle, and prickly lettuce are less than 2 inches tall or 2 inches across and are actively growing (refer to the TANK MIXTURES section of this label for additional details on rates and restrictions).

Wild garlic: For best results, apply 0.5 to 0.6 ounce (0.023-0.028 lbs ai) of this product per acre plus surfactant when wild garlic plants are less than 12 inches tall with 2 to 4 inches of new growth. For severe infestations, use the 0.6 ounce (0.028 lbs ai) per acre rate of this product. Control may be reduced when plants are hardened-off by cold weather and/or drought stress. Control is enhanced when applications are made during warm temperatures to actively growing wild garlic plants. Typical symptoms of dying wild garlic plants (discoloration and collapse) may not be noticeable for 2 to 5 weeks.

Thorough coverage of all garlic plants is essential.

Tank mixes of this product plus metribuzin may result in reduced control of wild garlic.

Wild radish: For best results, apply 0.5 to 0.6 ounce (0.023-0.028 lbs ai) this product per acre plus surfactant either in the fall or spring to wild radish rosettes less than 6 inches in diameter. Applications made later than 30 days after weed emergence will result in partial control. Fall applications must be made prior to hardening-off of plants.

Clearfield Volunteer Sunflowers: Control may not be adequate. For best results, use this product in a tank mix with fluroxypyr 1-methylheptyl ester, fluroxypyr 1-methylheptyl ester plus 2,4-D, 2-ethylhexyl ester, fluroxypyr 1-methylheptyl ester plus MCPA, 2-ethylhexyl ester, dicamba, dimethylamine salt) and 2,4-D or MCP (ester or amine), or bromoxynil containing products (including bromoxynil octanoate plus bromoxynil heptanoate, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, or bromoxynil octanoate plus bromoxynil heptanoate plus MCPA, 2-ethylhexyl ester).

TANK MIXTURES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

With 2,4-D (amine or ester) or MCPA (amine or ester)

This product may be tank mixed with the amine and ester formulations 2,4-D and MCPA herbicides for use on wheat, barley, oat, triticale or fallow.

Refer to the of 2,4-D or MCPA herbicide ester formulations for rates specific to the Red River Valley and adjacent areas of North Dakota and Minnesota and for all other areas.

In all areas except the Red River Valley and adjacent areas of North Dakota and Minnesota, a nonionic surfactant may be added to the mixture at 1/2 to 1.0 quart per 100 gallons of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury, especially at the higher phenoxy rates.

With dicamba, dimethylamine salt

This product may be tank mixed with dicamba, dimethylamine salt) or. Refer to tank mix partner label for use rates. Use higher rates when weed infestation is heavy. Nonionic surfactant may be added to the mixture at 1/2 to 1.0 quart per 100 gallons of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury. Refer to the specific dicamba label for application timing and restrictions. Tank mixes of this product plus dicamba may result in reduced control of some broadleaf weeds.

With 2,4-D (amine or ester) and dicamba, dimethylamine salt

This product may be applied in a three-way tank mix with formulations of dicamba and 2,4-D or MCP. Make application of this product plus dicamba, dimethylamine salt plus 2,4-D or MCP ester or amine. Use higher rates when weed infestation is heavy. Refer to tank mix partner labels for use rates. Nonionic surfactant may be added to the mixture at 1/2 to 1.0 quart per 100 gallons of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury. Apply this three-way combination to winter wheat and winter oat after the crop is tillering and prior to jointing (first node).

In Spring Wheat (including Durum) and Spring Oat, apply after the crop is tillering and before it exceeds the 5-leaf stage.

In Spring Barley, apply after the crop is tillering and before it exceeds the 4-leaf stage.

With Bromoxynil containing products (including bromoxynil octanoate plus bromoxynil heptanoate, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus bromoxynil heptanoate plus MCPA, 2-ethylhexyl ester or bromoxynil octanoate plus 2,4-D, 2-ethylhexyl ester)

This product may be tank mixed with bromoxynil containing herbicides registered for use on wheat, barley or triticale. Refer to tank mix partner labels for use rates. Note that tank mixes of this product plus bromoxynil may result in reduced control of Canada thistle.

With Fluroxypyr 1-methylheptyl ester, fluroxypyr 1-methylheptyl ester plus 2,4-D, 2-ethylhexyl ester, fluroxypyr 1-methylheptyl ester plus MCPA, 2-ethylhexyl ester

For improved control of Kochia (2 to 4 inches tall) this product may be tank mixed with fluroxypyr 1-methylheptyl ester, fluroxypyr 1-methylheptyl ester plus 2,4-D, 2-ethylhexyl ester, fluroxypyr 1-methylheptyl ester plus MCPA, 2-ethylhexyl ester. Refer to tank mix partner labels for use rates.

2,4-D and MCP herbicides (preferably ester formulations) may be tank mixed with this product plus fluroxypyr 1-methylheptyl ester. Consult local guidance and the TANK MIXTURES section of this label for additional information.

With Sulfosulfuron

This product can be tank mixed with sulfosulfuron herbicide for improved control of weeds in wheat. Refer to the sulfosulfuron label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the sulfosulfuron label conflict with the instructions on the Loveland Products, Inc. label.

With Carfentrazone-ethyl

This product can be tank mixed with carfentrazone-ethyl for improved control of weeds in wheat and barley. Refer to the carfentrazone-ethyl label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the carfentrazone-ethyl label conflict with the instructions on the Loveland Products, Inc. label.

With clopyralid, monoethanolamine salt or 2,4-D, triisopropanolamine salt plus Clopyralid, monoethanolamine salt or clopyralid plus MCPA, 2-ethylhexyl ester or fluroxypyr 1-methylheptyl ester plus Clopyralid, monoethanolamine salt

This product can be tank mixed with clopyralid, monoethanolamine salt or 2,4-D, triisopropanolamine salt plus Clopyralid, monoethanolamine salt or clopyralid plus MCPA, 2-ethylhexyl ester or fluroxypyr 1-methylheptyl ester plus Clopyralid, monoethanolamine salt for improved control of weeds in wheat and barley. Refer to the respective labels for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the respective labels conflict with the instructions on the Loveland Products, Inc. label.

With tribenuron-methyl

This product may be tank mixed with tribenuron-methyl based on local guidance.

With metsulfuron

This product may be tank mixed with metsulfuron based on local guidance.

With Imazamethabenzor Difenzoquat methyl sulfate

This product can be tank mixed with imazamethabenzor difenzoquat methyl sulfate. When tank mixing this product with imazamethabenz, always include another broadleaf weed herbicide with a different mode of action (for example 2,4-D ester, MCP ester, or bromoxynil (including bromoxynil octanoate plus bromoxynil heptanoate, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, bromoxynil octanoate plus MCPA, 2-ethylhexyl ester, or bromoxynil octanoate plus bromoxynil heptanoate plus MCPA, 2-ethylhexyl ester). Applications of this product plus imazamethabenz may cause temporary crop discoloration, stunting, or injury when heavy rainfall occurs shortly after application.

With clodinafop-propargyl

This product can be tank mixed with clodinafop-propargyl for improved control of weeds in spring wheat. Refer to the clodinafop-propargyl label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the clodinafop-propargyl label conflict with the instructions on the Loveland Products, Inc. label.

With Flucarbazone-sodium

This product can be tank mixed with flucarbazone-sodium herbicide for improved control of weeds in spring wheat. Refer to the flucarbazone-sodium label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the flucarbazone-sodium label conflict with the instructions on the Loveland Products, Inc. label.

With Diclofop-methyl

A tank mix of diclofop-methyl + this product can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter and spring wheat, and spring barley. Refer to tank mix partner label for use rates.

A three-way tank mix of diclofop-methyl + bromoxynil octanoate plus bromoxynil heptanoate + this product can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter and spring wheat, and spring barley. Refer to tank mix partner labels for use rates.

This tank mixture must only be used under good soil moisture conditions when wild oats are in the 1 to 4-leaf stage. Reduced control of foxtail is likely when tank mixing diclofop-methyl with this product. When foxtail is the major grassy weed in the field, DO NOT tank mix diclofop-methyl + this product; use sequential treatments. Be sure to follow all use directions, warnings and cautions on the EPA approved diclofop-methyl and bromoxynil octanoate plus bromoxynil heptanoate labels.

With Tralkoxydim

This product can be tank mixed with tralkoxydim for wild oat control. This tank mix may also include 2,4-D ester, MCPA ester, bromoxynil or bromoxynil/MCPA for greater spectrum of broadleaf control. See tralkoxydim label for specific use directions and restrictions on tank mixes.

To minimize the reduction in wild oat control, refer higher rates on tralkoxydim label when using rates of LPI THIFENSULFURON greater than 0.3 ounce (0.014 lbs ai) per acre.

Note: Green foxtail, yellow foxtail, Persian darnel and other grass weeds will not be controlled by this tank mix. Read and follow all label instructions on tank mixes, application timing, precautions, and warnings on the tralkoxydim label.

With fenoxaprop-p-ethyl

This product can be tank mixed with fenoxaprop-p-ethyl for control of some annual grass weeds. This tank mix may also include MCPA ester, bromoxynil or bromoxynil/MCPA for greater spectrum of broadleaf control. See fenoxaprop-p-ethyl label for specific use directions and restrictions on tank mixes.

Read and follow all label instructions on the EPA approved fenoxaprop-p-ethyl label for tank mixes, application timing, precautions, and restrictions. If those instructions conflict with this label, do not tank mix the product with this product.

With Fenoxaprop-p-ethyl plus MCPA, 2-ethylhexyl ester plus 2,4-D, 2-ethylhexyl ester

This product can be tank mixed with fenoxaprop-p-ethyl plus MCPA, 2-ethylhexyl ester plus 2,4-D, 2-ethylhexyl ester for green foxtail, foxtail millets and volunteer corn control. Refer to the fenoxaprop-p-ethyl plus MCPA, 2-ethylhexyl ester plus 2,4-D, 2-ethylhexyl ester label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the fenoxaprop-p-ethyl plus MCPA, 2-ethylhexyl ester plus 2,4-D, 2-ethylhexyl ester label conflict with the instructions on the Loveland Products, Inc. label.

With Tralkoxydim and Fluroxypyr 1-methylheptyl ester herbicides for wild oat control in wheat and barley

This product can be tank mixed with tralkoxydim and fluroxypyr 1-methylheptyl ester herbicides for improved control of wild oat in wheat and barley.

For best results, when tank mixed with tralkoxydim and fluroxypyr 1-methylheptyl ester, do not use less than 0.5 ounce (0.023 lbs ai) of LPI THIFENSULFURON per acre.

Tank mix this product with tralkoxydim for wild oat control. Include fluroxypyr 1-methylheptyl ester for a greater spectrum of broadleaf weed control. Refer to tank mix partner labels for use rates.

Note: Green foxtail, yellow foxtail, Persian dandel and other grass weeds will not be controlled by this tank mix.

For postemergence applications, apply to young, actively growing weeds after crop emergence. Typically, small weeds (less than 1" in height or diameter) that are actively growing at application are most easily controlled.

Refer to the labels for tralkoxydim, fluroxypyr 1-methylheptyl ester, and this product for information regarding use restrictions, labeled crops, rotational cropping specifications, sprayer cleanup, use precautions and other information. The most restrictive provisions on any tank mix partner label will apply. Do not use the tank mix if any restrictions on the tralkoxydim or fluroxypyr 1-methylheptyl ester label conflict with specifications on this label.

With Other Grass Control Products

This product can be tank mixed with grass control products. Antagonism generally does not occur. However, Loveland Products, Inc. advises that you first consult your state experiment station, university, or extension agent, agricultural dealer, or Loveland Products, Inc. representative as to the potential for antagonism before using the mixture. If no information is available, limit the initial use of this product and the grass product to a small area.

With Fungicides

This product may be tank mixed or used sequentially with fungicides registered for use on cereal grains.

With Insecticides

This product may be tank mixed or used sequentially with insecticides registered for use on cereal grains.

However, under certain conditions (drought stress, cold weather, or if the crop is in the 2 to 4-leaf stage), tank mixes or sequential applications of this product with organophosphate insecticides (including chlorpyrifos) may produce temporary crop yellowing or, in severe cases, crop injury. The potential for crop injury is greatest when wide fluctuations in day/night temperatures occur just prior to or soon after application. Test these mixtures in a small area before treating large areas.

Do not apply this product within 60 days of crop emergence where an organophosphate insecticide has been applied as an in-furrow treatment because crop injury may result.

Do not use this product plus Malathion because crop injury will result.

With Liquid Nitrogen Solution Fertilizer

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing this product in fertilizer solution.

This product must first be slurried with water and then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while this product is added. Use of this mixture may result in temporary crop yellowing and stunting.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 1/2 pint to 1.0 quart per 100 gallons of spray solution (0.06 to 0.25% v/v) based on local guidance.

When using high rates of liquid nitrogen fertilizer in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldman, or Loveland Products, Inc. representative for a specific advice before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with this product and the fertilizer mixture, ester formulations tend to be more compatible (see manufacturer's label). Additional surfactant may not be needed when using this product in tank mix with 2,4-D ester or MCP ester and liquid nitrogen fertilizer solutions. Consult your agricultural dealer, consultant, field advisor, or Loveland Products, Inc. representative for a specific advice before adding an adjuvant to these tank mixtures.

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Note: In certain areas east of the Mississippi River unacceptable crop response may occur with use of straight or dilute nitrogen fertilizer carrier solutions where cold temperatures or widely fluctuating day/night temperatures exist. In these areas consult your agricultural dealer, consultant, field advisor, or Loveland Products, Inc. representative for a specific advice before using nitrogen fertilizer carrier solutions.

Liquid nitrogen fertilizer solutions that contain sulfur can increase crop response.

Do not use low rates of liquid fertilizer as a substitute for a surfactant.

Do not use with liquid fertilizer solutions with a pH less than 3.0.

SOYBEANS

APPLICATION TIMING (POST EMERGENCE)

This product may be applied to soybeans anytime after the first trifoliate has expanded fully. Apply no later than 60 days before harvest.

Early-season soybean injury may result from tank-mix applications with other registered herbicides. Injury may manifest itself as stunting (seen as a reduction in leaf size or internode length), yellowing leaves and/or red veins, and necrosis in the leaves and petioles. The potential for soybean injury is most pronounced with applications made during hot, humid conditions, under widely fluctuating weather or temperature conditions, or with applications to soybeans under stress.

USE RATES IN SOYBEANS

Make a single application of this product at a rate of 0.083 (1/12) ounce (0.003 lbs ai) per acre for selective postemergence broadleaf weed control on conventional soybean varieties.

Apply this product at 1/12- 1/3 ounce (0.003-0.015 lbs ai) per acre for use on soybeans designated "STS". Severe injury or death of soybeans will result if any soybeans not designated as STS are treated with more than 1/12 ounce (0.003 lbs ai) of this product. Multiple applications of this product may be applied to STS soybeans provided no more than a total of 1/3 ounce (0.015 lbs ai) is applied per year.

USE RESTRICTIONS

- DO NOT apply more than 0.083 oz (0.003 lbs ai) of product per acre per application to conventional soybean varieties.
- DO NOT apply more than 0.083 oz (0.003 lbs ai) of product per acre per year to conventional soybean varieties.
- DO NOT apply more than 1 application per year to conventional soybean varieties.
- DO NOT apply more than 1/3 oz (0.015 lbs ai) of product per acre per application to STS soybeans.
- DO NOT apply more than 1/3 oz (0.015 lbs ai) of product per acre per year to STS soybeans.
- DO NOT apply more than 5 applications per year at 0.003 oz of product per acre to STS soybeans.
- For repeat applications make on a minimum of a 14-day interval.

SPRAY ADDITIVES

Applications of this product in soybeans must include a nonionic surfactant or crop oil concentrate, and an ammonium nitrogen fertilizer. See SPRAY ADJUVANTS.

WEEDS CONTROLLED

When applied to soybeans as directed, this product will control the following weeds:

Weeds Controlled	Maximum Size (Inches) at application
Annual Smartweeds	6
Lambsquarters	4
Pigweed	
Rough (red root)	12
Other species	8
Velvetleaf	6
Wild Mustard	up to 4 inches (diameter)

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Partial Control*	Maximum Size (Inches) at application
Cocklebur	6
Jimsonweed	4
Wild Sunflower	6

*Partial Control: A visual reduction of weed population as well as a significant loss of vigor for individual weed plants.

See WEEDS CONTROLLED in the CEREALS, FALLOW AND PREPLANT BURNDOWN section for a listing of weeds controlled using applications of 1/3 ounce (0.015 lbs ai) of this product in STS soybeans.

TANK MIXTURES IN SOYBEANS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

This product may be tank mixed with full or reduced rates of other products registered for use in soybeans. However, to the extent consistent with applicable law, Loveland Products, Inc. will not warrant crop safety or weed control of this product's tank mixtures with any other pesticide or spray adjuvant except as specified in this label.

Do not tank mix this product with organophosphate insecticides, or apply this product within 14 days before or after an application of an organophosphate insecticide, as severe crop injury may occur.

With Postemergence Grass Herbicides

This product may be tank mixed with postemergence grass herbicides including quizalofop-p-ethyl.

With postemergence grass herbicides, surfactant rate (concentration) must be 1.0 to 2.0 pints per 100 gallons of spray solution (0.125% to 0.25% v/v concentration). Use of a higher rate of nonionic surfactant, particularly under hot, humid conditions, may result in temporary crop injury. Do not use crop oil concentrate when tank mixing this product herbicide with postemergence grass herbicides. Include a nonionic surfactant with the tank mix of this product and post grass herbicides including quizalofop-p-ethyl.

With imazethapyr for postemerg broadleaf weed control in soybeans for use in the State of North Dakota

This tank mix is labeled for the control of broadleaf weeds only. use different control measures to control grassy weeds, including an application of quizalofop-p-ethyl 1 day before or 1 day after applying this product plus imazethapyr. Conversely, a soil applied preemerg grass herbicide may be used in a planned weed control program with this product plus imazethapyr.

Refer to tank mix partner labels for use rates. Best results are obtained when this product plus imazethapyr tank mix is applied to weeds that are young (after the first true leaves have expanded, but before they exceed the size indicated in the table below) and actively growing. Applications made to weeds that are in the cotyledon stage, larger than the size indicated below, or to weeds under stress (weather, herbicide, or other) may result in unsatisfactory control.

Weeds Controlled	Size (Height in Inches)
Cocklebur	2 to 4
Lambsquarters	2 to 4
Nightshade	
black	1 to 3
eastern black	1 to 3
hairy	1 to 3
Pigweed	
rough (redroot)	2 to 12
other pigweed species	2 to 8
waterhemp species	2 to 8
Smartweeds, annual	2 to 6
Velvetleaf	2 to 6

Wild mustard	Up to 4 (diameter)
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Apply after the first trifoliate of the soybean plant has fully expanded. Applications of this product plus imazethapyr tank mixes must be made before soybeans have begun to flower. There must be an interval of at least 85 days between an application of imazethapyr and soybean harvest.

The soybeans must be free from stress and actively growing at the time of application. Stress may be caused by abnormally hot or cold weather, growing conditions including drought or water-saturated soil, disease, soil nutrient deficiencies including iron chlorosis, or injury from nematodes, insects, or prior herbicide applications.

Applications of this product plus imazethapyr may shorten stem internodal length and cause temporary crop injury. Crop response may be increased when applications are made to soybeans that are under stress.

ADJUVANTS

Postemerge applications of this product tank mixed with imazethapyr must include the addition of a nonionic surfactant and ammonium nitrogen fertilizer.

- A nonionic surfactant must be included at the rate of 1.0 pint per 100 gallons of solution (0.125 % v/v concentration). Do not use Dash or Sun It-II.
- Use a high quality liquid nitrogen fertilizer including 28-0-0 at a rate of 4.0 to 8.0 pints per acre, or 10-34-0 at a rate of 2.0 to 4.0 pints per acre. Use the lower rate for spray volumes less than 15.0 gallons per acre. Alternately, a high-quality, sprayable grade of ammonium sulfate (21-0-0) may be used at a rate of 2.0 to 4.0 pounds per acre.

Broadcast Application: Use flat fan nozzles at 25 to 60 psi. Do not use flood, hollow cone, rain drop, whirl chamber or controlled droplet applicator (CDA) type nozzles as unacceptable crop injury, excessive spray drift, or poor weed control may result. Use 10.0 to 25.0 gallons of water per acre. For proper spray coverage, adjust the boom and nozzle height according to the specifications listed by the nozzle manufacturer.

Band Application: For band application, use proportionately less spray mixture. To avoid crop injury, carefully calibrate the band applicator not to exceed the labeled rate. Carefully follow the manufacturer's instructions for nozzle types (flat fan nozzles preferred), nozzle orientation, distance of nozzles from the crop and weeds, spray volumes, calibration, and spray pressure.

Aerial Application: Use nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at 5.0 to 10.0 GPA. Do not apply during a temperature inversion condition, when winds are gusty, or when other conditions will favor poor coverage and/or off target spray movement. Use a minimum of 5.0 gallons of water per acre. Consult the respective product labels for special directions for aerial application.

ROTATIONAL CROP GUIDELINES

Soybeans, field corn, grain sorghum, rice, safflower, wheat, barley, oats, and triticale may be planted anytime after the application of this product. Cotton may be planted 7 days after application. Any other crop may be planted 45 days after the application of this product. Refer to the imazethapyr labels for guidelines on planting rotational crops following its use. Follow the maximum time interval listed on the respective labels prior to planting a rotational crop. The most restrictive time interval shall apply.

LIMITATIONS

Refer to the imazethapyr label for additional use directions, use restrictions, and precautions. The most restrictive provision on either the imazethapyr label or this product label will apply.

This product plus imazethapyr treatments may be tank mixed with quizalofop-p-ethyl to control volunteer corn and shattercane. Imazethapyr will reduce the activity of quizalofop-p-ethyl on all other grasses. For broad spectrum grass control, apply quizalofop-p-ethyl 1 day before, or 7 days after imazethapyr treatments. Refer to the quizalofop-p-ethyl label for application rates, weed sizes, and restrictions.

Applications within 1 hour of rain may reduce weed control.

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Cultivation before, during, or within 7 days after the application may put the weeds under stress by pruning roots. Root pruning may reduce weed control. The best time to cultivate is approximately 14 days after application.

To avoid subsequent injury to crops other than soybeans, thoroughly clean all mixing and spray equipment immediately following application.

Refer to the respective labels for cleanout procedures. Follow the more restrictive cleanout directions.

RESTRICTIONS

Sequential applications of this product following postemergence Imazethapyr treatments are not allowed because:

- Crop injury from sequential postemergence applications of this product following imazethapyr is greater than from the use of either product applied alone. The first application interferes with the soybean plant's ability to metabolize the second herbicide treatment. Sequential applications may result in severe crop injury.
- Any weeds not controlled by the imazethapyr application will be stressed at the time of the sequential treatment. This will result in unsatisfactory weed control, particularly for stress sensitive weeds including lambsquarters.
- Weeds that have recovered from a imazethapyr application will typically be larger than labeled size by the time soybeans may be safely treated with this product application. This will result in unsatisfactory weed control.

Do not allow spray from either ground or aerial equipment to drift onto adjacent crops or land, as injury to other plants may occur.

Do not tank mix with organophosphate insecticides, or apply within 14 days before or after an application of an organophosphate insecticide as severe crop injury may occur.

Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.

With reduced rates of imazethapyr or with chlorimuron plus reduced rates of imazethapyr for control of nightshade in soybeans in the States of Indiana, Iowa, Michigan, Minnesota, Ohio, Pennsylvania, South Dakota and Wisconsin

LPI THIFENSULFURON at 1/12 ounce (0.003 lbs ai) per acre, or chlorimuron plus LPI THIFENSULFURON at 1/12 ounce (0.003 lbs ai) per acre may be tank mixed with imazethapyr for postemergence control of weeds listed on the chlorimuron and/or this product labels, and for the control of eastern black nightshade less than 2 inches tall. Refer to the labels for chlorimuron, imazethapyr and this product for use rates and other weeds controlled and maximum heights.

Best results are obtained when either this product or chlorimuron plus this product are tank mixed with imazethapyr and applied to weeds that are young (after the first true leaves have expanded, but before they exceed the size indicated on this label) and actively growing. This is generally 21 to 30 days after planting of soybeans.

Applications made to weeds that are in the cotyledon stage, or to weeds larger than the sizes indicated, or to weeds under stress (weather, herbicide, or other) may result in unsatisfactory control.

This program is advised for the control of broadleaf weeds only. Use other measures to control grassy weeds.

ADJUVANTS: Postemergence applications of either this product or chlorimuron plus this product tank mixed with imazethapyr must include the addition of a nonionic surfactant and ammonium nitrogen fertilizer.

- Use a nonionic surfactant at the rate of 1.0 pint per 100 gallon of solution (0.125% v/v). Under dry, cool (generally 70° F or less) conditions the rate of nonionic surfactant may be increased to 2.0 pints per 100 gallons of solution (0.25% v/v).
- Use a high quality nitrogen fertilizer product including 28-0-0 at a rate of 4.0 to 8.0 pints per acre, or 10-34-0 at a rate of 2.0 to 4.0 pints per acre. Alternately, a high-quality, sprayable grade of ammonium sulfate (21-0-0) may be used at a rate of 2.0 to 4.0 pounds per acre.
- Use the lower rate for spray volumes less than 15.0 gallon per acre.
- Do not use Dash, Dash HC, crop oil concentrates or methylated seed oil products including Sun It II when tank mixing either this product or chlorimuron plus this product with imazethapyr as excessive crop injury may occur.

APPLICATION INFORMATION

Broadcast Application: Use flat fan nozzles at 25 to 40 psi. Do not use flood, hollow cone, rain drop, whirl chamber or controlled droplet applicator (CDA) type nozzles as unacceptable crop injury, excessive spray drift, or poor weed control may result. Use 10.0 to 25.0 gallons of water per acre. For proper spray coverage, adjust the boom and nozzle height according to the specifications listed by the nozzle manufacturer.

Band Application: For band application, use proportionately less spray mixture. To avoid crop injury, carefully calibrate the band applicator so as not to exceed the desired use rate.

Carefully follow the manufacturer's instructions for nozzle type, (flat fan preferred), nozzle orientation, distance of the nozzles from the crop and weeds, spray volumes, calibration, and spray pressure.

Aerial Application: Use nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at 5.0 to 10.0 gallons per acre. Do not apply during a temperature inversion, when winds are gusty, or when other conditions will favor poor coverage and/or off target spray movement. Use a minimum of 5.0 gallons of water per acre. Consult the respective product labels for special directions for aerial application.

IMPORTANT PRECAUTIONS

- Soybeans must be free from stress and actively growing at the time of application. Stress may be caused by abnormally hot or cold weather, growing conditions including drought or water-saturated soil, disease, soil nutrient deficiencies including iron chlorosis, or injury from nematodes, insects, or prior herbicide applications.
- Applications of either this product or chlorimuron plus this product when tank mixed with imazethapyr may shorten stem internodal length and cause temporary crop injury. Crop response may be increased when applications are made to soybeans that are under stress. **Soybeans will recover quickly under normal growing conditions.**
- Cultivation may put weeds under stress by pruning roots, thus reducing weed control. Avoid cultivation 7 to 10 days prior to or following application of the herbicide treatment. For maximum weed control, cultivate 7 to 10 days after application.
- Apply this treatment after the first trifoliolate of the soybean has fully expanded and the plants are actively growing, but before soybeans begin to flower.
- Applications within 1 hour of rain may reduce weed control.

RESTRICTIONS

- Refer to the labels for chlorimuron, this product and imazethapyr for additional use directions, use restrictions, rotational crop intervals, and precautions. The most restrictive provision on either label will apply.

With Glyphosate

This product may be tank mixed with glyphosate for control of certain broadleaf weeds in Roundup Ready or Roundup Ready X "STS stacked trait" soybeans. For tank mixtures of this product plus glyphosate herbicide, always read and follow all use directions, restrictions, and precautions on the EPA approved labels. When tank mixing, the most restrictive labeling applies.

For improved control of common lambsquarters, volunteer Roundup Ready canola, ALS-sensitive horseweed and kochia, and/or wild buckwheat, tank mix up to 0.33 ounce (0.015 lbs ai) of this product per acre with a labeled rate of glyphosate. Refer to this product label and the glyphosate manufacturer's labels and technical bulletins for other weeds which may be controlled or suppressed, and the maximum weed size at application. For best results, apply to small, actively growing weeds.

This product plus glyphosate tank mix may be applied to STS® X Roundup Ready stacked trait soybeans anytime after the first trifoliolate has expanded fully and up until 60 days before soybeans are harvested.

The tank mixture of this product plus glyphosate is for use only on soybeans designated STS X Roundup Ready stacked trait. Severe injury or death of soybeans will result if any soybeans not designated as STS X Roundup Ready stacked trait are treated with this tank mixture.

Adjuvants

When tank mixing this product with glyphosate, it is advised to add ammonium sulfate (AMS) at 4.25 to 17.0 pound per 100 gallons of spray mixture. See the glyphosate manufacturer's label for specific ammonium nitrogen instructions. When velvetleaf is present, ammonium sulfate is required at a minimum rate of 2.0 pound per acre.

The addition of surfactant at 0.125 to 0.25% v/v (1.0 to 2.0 pints per 100 gallons spray mixture) to some LPI THIFENSULFURON plus glyphosate tank mixes will improve weed control when glyphosate products are used that do not contain built-in adjuvant systems. Glyphosate products differ in their adjuvant contents. Glyphosate products allow for the addition of surfactants. See the manufacturer's specific surfactant instructions.

SEQUENTIAL APPLICATIONS IN SOYBEANS

Before making applications of this product to soybeans previously treated with other herbicides, ensure that the soybeans are free from stress (herbicide or environmental) and actively growing.

FIELD CORN

APPLICATION INFORMATION

This product may be applied to 2 to 6-leaf field corn (1 to 5 collars, up to 16 inches tall) at a rate of 0.083 (1/12) ounce (0.003 lbs ai) per acre. Do not apply to field corn taller than 16 inches or 5 collars, whichever is more restrictive.

This product may be applied as a tank mixture with labeled rates of atrazine and glyphosate. Do not tank mix with other corn herbicides unless specified on this product's labels or technical bulletins.

Apply this product to field corn hybrids with a Relative Maturity (RM) of 88 days or more, including "food grade" (yellow dent, hard endosperm), waxy and high-oil corn. Not all field corn hybrids of less than 88 days RM, not all white corn hybrids or Hi-Lysine hybrids have been tested for crop safety, nor does Loveland Products, Inc. have access to all seed company data. Consequently, injury arising from the use of this product on these types of corn, to the extent allowed by applicable law, is the responsibility of the user. Consult with your seed supplier before applying this product to any of these corn types.

Do not make more than one application per year.

USE RESTRICTIONS

- DO NOT apply more than 1/12 ounces (0.003 lbs ai) of product per acre per application.
- DO NOT apply more than 1/12 ounces (0.003 lbs ai) of product per acre per year.
- DO NOT apply more than 1 application per year.

TIMING TO WEEDS

Apply to weeds whose first true leaves are expanded but before weeds exceed the sizes listed below.

When applied as directed, this product will control the following weeds:

WEED	Maximum Size (Inches)
Velvetleaf	6
Pigweed species	12
Lambsquarters	4
Annual smartweeds	6
Wild mustard	Up to 4 inches in diameter

ADJUVANTS

Always add either nonionic surfactant at 0.25% v/v (1.0 quart per 100 gallons) or crop oil concentrate at 1% v/v (1.0 gallons per 100 gallons) plus either ammonium nitrogen solution including 28% UAN (2.0 to 4.0 quarts per acre) of ammonium sulfate (2.0 to 4.0 pounds per acre). Loveland Products, Inc. advises using Activator 90 or Liberate® at 0.25% v/v or Quad 7 at 1% v/v or Herbimax® at 1% v/v.

When tank mixing this product with glyphosate, it is advised to add ammonium sulfate (AMS) at 4.25 to 17.0 pounds per 100 gallons of spray mixture. See the glyphosate manufacturer's label for specific ammonium nitrogen instructions. When velvetleaf is present, ammonium sulfate is required at a minimum rate of 2.0 pound per acre.

The addition of surfactant at 0.125 to 0.25% v/v (1.0 to 2.0 pints per 100 gallons spray mixture) to some of this product plus glyphosate tank mixes will improve weed control when glyphosate products are used that do not contain built-in adjuvant systems. Glyphosate products differ in their adjuvant contents. Glyphosate products allow for addition of surfactants. See the manufacturer's specific surfactant instructions.

SOIL INSECTICIDE INTERACTIONS

This product may interact with certain insecticides previously applied to the crop. Crop response varies with field corn type, insecticide used, insecticide application method, and soil type.

This product may be applied to corn previously treated with chlorethoxyfos, cyfluthrin plus phostebupirim, tefluthrin or non-organophosphate (OP) soil insecticides regardless of soil type.

- DO NOT APPLY this product to corn previously treated with terbufos.
- Applications of this product to corn previously treated with terbufos, chlorpyrifos or phorate may cause unacceptable crop injury, especially on soils of less than 4% organic matter.
- Applications of this product to corn previously treated with chlorpyrifos, or other organophosphate insecticides not listed above, may result in temporary crop injury.

POST HARVEST

APPLICATION TIMING

This product may be used as a burndown treatment to crop stubble when the majority of weeds have emerged and are actively growing. (See the CROP ROTATION section of this label for additional information).

USE RATES

Apply this product at 0.3 to 0.6 ounce (0.014-0.028 lbs ai) per acre to crop stubble after harvest. Use the 0.6 ounce (0.028 lbs ai) per acre rate when weed infestation is heavy and predominantly consists of those weeds listed under the WEEDS PARTIALLY CONTROLLED section of this label or when application timing and environmental conditions are marginal. (See the APPLICATION TIMING section of this label for restriction on planting intervals). This product must be applied in combination with other suitable registered burndown herbicides (See the TANK MIXTURES section of this label for additional information).

Sequential treatments of this product may also be made provided the total amount of this product applied per year does not exceed 1.0 ounce (0.046 lbs ai) per acre.

USE RESTRICTIONS

- DO NOT apply more than 0.6 ounces (0.028 lbs ai) of product per acre per application.
- DO NOT apply more than 1.0 ounces (0.046 lbs ai) of product per acre per year, including burndown applications.
- DO NOT apply more than 3 applications per year at 0.3 oz of product per acre, including burndown applications.
- DO NOT apply by air in the State of New York.
- DO NOT apply to sweet corn, popcorn or field corn grown for seed.
- DO NOT apply this product through any type of irrigation systems.
- DO NOT graze or feed forage or grain from treated field corn to livestock within 30 days of application.
- For repeat applications make on a minimum of a 14-day interval.

TANK MIXTURES IN POST HARVEST APPLICATIONS

This product may be used as a post harvest treatment to crop stubble, and must be tank mixed with other herbicides that are registered for use in fallow.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT USE AND APPLICATION DIRECTIONS - ALL CROPS AND USES

GROUND APPLICATION

For best performance, select nozzles and pressure that deliver MEDIUM spray. Nozzles that deliver COARSE spray droplets may be used to reduce drift, provided spray volume is increased to maintain coverage on small weeds. For optimal product performance and minimal spray drift, adjust the spray boom to the lowest possible spray height listed in manufacturers' specifications.

Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

WHEAT, BARLEY, OAT, TRITICALE, POST-HARVEST BURNDOWN, PRE-PLANT BURNDOWN AND FALLOW:

For flat-fan nozzles, use a spray volume of at least 5.0 gallons per acre (GPA).

For flood nozzles on 30 inch spacings, use at least 10.0 GPA, flood nozzles no larger than TK10 (or the equivalent), and a pressure of at least 30 psi. For 40 inch nozzle spacings, use at least 13.0 GPA; for 60 inch spacings use at least 20.0 GPA. It is essential to overlap the nozzles 100% for all spacings.

Raindrop® RA nozzles are not advised for this product's applications, as weed control performance may be reduced.

Use screens that are 50-mesh or larger.

CORN AND SOYBEANS:

Broadcast Application

- Use 10.0 to 25.0 gallons of water per acre.

Ensure that equipment is set up to avoid applying an excessive rate directly over the rows and into the corn plant whorl.

Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

Under heavy weed pressure or dense crop foliage, increase minimum spray volume to 15.0 to 25.0 gallons per acre.

Band Application

For band applications, use proportionately less spray mixture.

To avoid crop injury, carefully calibrate the band applicator to not exceed the labeled rate.

Carefully follow the manufacturer's instructions for nozzle type (flat fans), orientation, distance of nozzles from the crop and weeds, spray volumes, calibration and spray pressure.

AERIAL APPLICATION

Do not apply by air in the State of New York.

Do not apply during a temperature inversion, when winds are gusty, or when conditions favor poor coverage and/or off-target spray movement.

In wheat, barley, oats, triticale, post-harvest burndown, pre-plant burndown and fallow use 2.0 to 5.0 gallons per acre; use at least 3.0 gallons per acre in Idaho, Oregon and Utah.

In corn and soybeans, use a minimum of 5.0 gallons per acre.

When applying this product by air in areas adjacent to sensitive crops, use solid stream nozzles oriented straight back. Adjust the swath to avoid spray drift damage to sensitive crops downwind and/or use ground equipment to treat the border edge of fields. See the SPRAY DRIFT MANAGEMENT section of this label.

SPRAY ADJUVANTS

Always include a spray adjuvant with applications of this product. In addition to a spray adjuvant, an ammonium nitrogen fertilizer may be used. Do not use low rates of liquid nitrogen fertilizer solution as a substitute for surfactant. Antifoaming agents may be used if needed.

Consult your Ag dealer or applicator, local Loveland Products, Inc. fact sheets and technical bulletins prior to using an adjuvant system. If another herbicide is tank with this product, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients.

Nonionic Surfactant (NIS)

- Apply 0.06 to 0.50% v/v (1/2 to 4.0 pints per 100 gallons of spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12. See the TANK MIXTURES section of this label for additional information.

Crop Oil Concentrate (COC) - Petroleum or Modified Seed Oil (MSO)

- Apply at 1% v/v (1.0 gallon per 100 gallons spray solution) or 2% under arid conditions. MSO adjuvants may be used at 0.5% v/v if specified on local Loveland Products, Inc. product literature or service policies.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

Special Adjuvant Types

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by Loveland Products, Inc. product management. Consult separate Loveland Products, Inc. technical bulletins for detailed information before using adjuvant types not specified on this label.

Ammonium Nitrogen Fertilizer

- Use 2.0 quarts per acre of a high-quality urea ammonium nitrate (UAN), including 28%N or 32%N, or 2.0 pounds per acre of a spray-grade ammonium sulfate (AMS). Use 4.0 quarts per acre UAN or 4.0 pounds per acre AMS under arid conditions.

CROP ROTATION

Soybeans, field corn, grain sorghum, rice, safflower, wheat, barley, oats, and triticale may be planted anytime after the application of this product. Cotton may be planted 7 days after application. Any other crop may be planted 45 days after the application of this product.

GRAZING

Allow at least 7 days between application and grazing of treated forage. In addition, allow at least 7 days between application and feeding of forage from treated areas to livestock. Allow at least 30 days between application and feeding of hay from treated areas to livestock. Harvested straw may be used for bedding and/or feed.

MIXING INSTRUCTIONS

Do not use with spray additives that alter the pH of the spray solution below pH 5.0 or above pH 9.0, as rapid product degradation can occur. Spray solutions of pH 6.0 to 8.0 allow for optimum stability of this product.

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of this product.

3. Continue agitation until the product is fully dispersed, at least 5 minutes.
4. Once this product is fully dispersed, maintain agitation and continue filling tank with water. The product must be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) then add the required volume of spray adjuvant. Always add spray adjuvant last. Antifoaming agents may be used. Do not use with spray additives that alter the pH of the spray solution below pH 6.0 as rapid product degradation can occur. Spray solutions of pH 7.0 and higher allow for optimum stability of this product.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply this product's spray mixture within 24 hours of mixing to avoid product degradation.
8. If this product and a tank mix partner are to be applied in multiple loads, preslurry the product in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of this product.

SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's instructions for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop. Do not make applications using equipment and/or spray volumes or during weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift refer to the SPRAY DRIFT MANAGEMENT section of this label. Continuous agitation is required to keep this product in suspension.

SPRAYER CLEANUP

The spray equipment must be cleaned before this product is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in the AFTER SPRAYING LPI THIFENSULFURON section of this label.

AT THE END OF THE DAY

It is advised that during periods when multiple loads of this product are applied, at the end of each day of spraying the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

AFTER SPRAYING THIS PRODUCT AND BEFORE SPRAYING CROPS OTHER THAN WHEAT, BARLEY, OAT, TRITICALE, FIELD CORN AND SOYBEANS

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of this product as follows:

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1.0 gallon of household ammonia* (contains 3% active ingredient) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) specified on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

* Equivalent amounts of an alternate-strength ammonia solution or a Loveland Products, Inc. approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, applicator, or Loveland Products, Inc. representative for a listing of approved cleaners.

Notes:

1. **CAUTION:** Do not use chlorine bleach with ammonia because dangerous gases will form. Do not clean equipment in an enclosed area.
2. Steam-cleaning aerial spray tanks is advised prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When this product is tank mixed with other pesticides, all cleanout procedure for each product must be examined and the most rigorous procedure must be followed.
4. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products must be followed as per the individual product labels.
5. Where routine spraying practices include shared equipment frequently being switched between applications of this product and applications of other pesticides to LPI THIFENSULFURON sensitive crops during the same spray season, it is advised that a sprayer be dedicated to this product to further reduce the chance of crop injury.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store product in original container only. Store in a cool, dry place.

PESTICIDE DISPOSAL: Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages up to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For refillable containers: Refill this container with this product only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, P.O. BOX 1286, GREELEY, CO 80634.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

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Roundup Ready is registered trademark of Monsanto.

Dash and Dash HC are registered trademarks of BASF Corporation.

Raindrop RA is a registered trademark of Delavan.

Herbimax and Liberate are registered trademarks and Thief is a trademark of Loveland Products, Inc.

Sun-It-II is a registered trademark of Agsco, Inc.